

J.P. MORGAN MARKETS LIMITED
(Registered Number: 01592029)

Annual report for the year ended 31 December 2019

J.P. MORGAN MARKETS LIMITED
Annual report for the year ended 31 December 2019

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J.P. MORGAN MARKETS LIMITED

Strategic report

The directors present the strategic report of J.P. Morgan Markets Limited (the "Company") for the year ended 31 December 2019.

Overview

The Company is incorporated and domiciled in England and Wales. It is an indirect subsidiary of JPMorgan Chase & Co. ("JPMorgan Chase" or the "Firm"). JPMorgan Chase is a financial holding company incorporated under Delaware law in 1968, it is a leading global financial services firm and one of the largest banking institutions in the United States of America ("U.S."), with operations worldwide. The Company had \$4,481 million in assets and \$4,213 million in total equity as of 31 December 2019.

Review of business

The directors were satisfied with the performance of the Company due to the strong capital position.

Key performance indicators ("KPIs")

The results are monitored against expectations of the business activities. The Board of Directors monitors progress on the performance of the Company by reference to the following KPIs:

Financial Performance (in USD '000's except for capital ratios)	2019	2018
Income statement		
Total operating profit	102,330	87,739
Profit for the financial year after tax	71,087	60,323
Balance sheet		
Total assets	4,480,797	4,354,580
Return on assets	2%	1%
Capital Ratios (unaudited)		
Total Capital Resources	4,208,018	4,137,008
Pillar 1 Capital Requirement	31,765	24,780
Total Capital Ratio	1,060%	1,336%

Capital resources utilised to calculate capital ratios are inclusive of audited current year profits.

Income statement

The income statement for the year ended 31 December 2019 is set out on page 21. The profit for the financial year was \$71 million (2018: \$60 million).

Balance sheet

The balance sheet is set out on page 22 - 23. The Company has total assets and total liabilities of \$4,481 million (2018: \$4,355 million) and \$267 million (2018: \$213 million) respectively, as at 31 December 2019.

Future outlook

The UK's departure from the EU, which is commonly referred to as "Brexit," occurred on January 31, 2020. Following this departure, the UK has entered a transition period that is scheduled to expire on December 31, 2020. The purpose of the transition period is to enable the UK and the EU to negotiate the terms of their future relationship. The transition period can be extended, but both sides need to agree to extend it by July 1, 2020. It is not clear whether the terms of the future relationship can be agreed before the end of 2020, and so significant uncertainty remains about the relationship between the UK and the EU after the end of the transition period.

In light of the ongoing uncertainty, the Firm continues to execute the relevant elements of its Firmwide Brexit Implementation program with the objective of being able to continue delivering the Firm's capabilities to its EU clients. The program covers strategic implementation across all impacted businesses and functions and includes an ongoing assessment of implementation risks including political, legal and regulatory risks and plans for addressing and mitigating those risks under any scenario, including where the UK and the EU fail to reach an agreement on their future relationship by the end of 2020 and the transition period is not extended.

The Firm has a long-standing presence in the UK, which currently serves as the regional headquarters of the Firm's operations in over 30 countries across Europe, the Middle East, and Africa ("EMEA"). In the region, the Firm serves clients and customers across its business segments. The Firm has approximately 17,000 employees in the UK, of which approximately two-thirds are in London, with operational and technology support centers in locations such as Bournemouth, Glasgow and Edinburgh.

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Strategic report (continued)

Future outlook (continued)

The Firm's legal entities in Germany, Luxembourg and Ireland are now prepared and licensed to provide services to the Firm's EU clients, including a branch network covering locations such as Paris, Madrid and Milan.

The impact of Brexit on the Company's business model and risks will continue to be assessed as part of the Firmwide strategy in considering a strategic post-Brexit legal entity structure.

The Firm's legal entity strategy was amended to include activity that would optimise JPM Group's activity in relation to certain US regulations and requirements. It is expected that this expanded strategy will lead to additional activity being booked into the entity in the future.

COVID-19

The Firm is monitoring the Coronavirus Disease 2019 ("COVID-19"), based on the guidance being provided by the relevant health and government authorities, and continues to implement protocols and processes in response to the spread of the virus. For more detail on Firmwide measures refer to operational risk (page 13-14). As at the date on which this set of financial statements were authorised for issue, as the situation is ongoing and eventual outcome unknown, the Company cannot quantify the final impact as a result of COVID-19, refer to post balance sheet events (note 25).

Statement by the Directors in performance of their statutory duties in accordance with s172 (1) Companies Act 2006

This section is the section 172(1) statement required under section 414CZA(1) of the Companies Act 2006. The financial services regulatory requirements and expectations to which the Company is subject provide a framework for the Company to demonstrate how the board makes decisions for the long term success of the Company and its stakeholders, including having regard to how the board makes sure the Company complies with the requirements of section 172 of the Companies Act 2006. The structure and content of the information provided to the board has been enhanced so as to better reflect the impact of any deliberations or decision on the factors set out in section 172(1) of the Companies Act 2006.

This statement also contains the disclosures on employee engagement and business relationships required by Schedule 7.11(1)(b) and Schedule 7.11B(1) (respectively) of the Companies (Miscellaneous Reporting) Regulations 2018.

The Company's Board of Directors is accountable for overall oversight of the Company. The Board of Directors has responsibility for maintaining the safety and soundness of the Company, and for ensuring that the Company is acting within the strategy, values, standards and controls of the wider JPMorgan Chase & Co. group of companies (the "**Firm**" or the "**Group**").

Certain of the factors to which the directors must have regard under section 172(1) of the Companies Act 2006 are dealt with by policies, procedures and practices set by the Firm on a firmwide basis; these policies, procedures and practices apply to the Company and the board.

The Company (or, as applicable, the Firm) makes certain disclosures that include information about its governance that has a direct or indirect impact on the board of the Company's decision-making processes and how they apply the factors set out in section 172 (1) of the Companies Act 2006. A list of those disclosures is at the end of this statement.

In addition, the Company is required to comply with provisions relating to its governance that do not require public disclosures to be made, including:

- EBA/ESMA Joint Guidelines on Management Body Suitability (the "**Suitability Guidelines**")
- EBA Guidelines on Internal Governance (the "**Internal Governance Guidelines**")
- The Senior Managers and Certification Regime under the Financial Services and Markets Act 2000, which has applied since 9 December 2019 (the "**SMCR**")
- The principles set out in the FCA Handbook (the "**FCA Principles**")

Strategy, Risk and Sustainability

The directors are expected to act with honesty, integrity and independence of mind in assessing and challenging senior management, and to commit enough time to the role in order to perform these duties effectively, as required by the Suitability Guidelines.

The Company has a Matters Reserved for the Board which requires that the Board defines, oversees and is accountable for the implementation of governance arrangements that ensure effective and prudent management. This includes requirements that the Board will approve and oversee the Company's strategic objectives, risk strategy and internal governance, including the segregation of duties in the organisation and the prevention of conflicts of interest.

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Strategic report (continued)

Statement by the Directors in performance of their statutory duties in accordance with s172 (1) Companies Act 2006 (continued)

Strategy, Risk and Sustainability (continued)

Risk is an inherent part of the Firm's business activities. The Firm's overall objective is to manage its business, and the associated risks, in a manner that balances serving the interest of its clients, customers and investors and protects the safety and soundness of the Firm. Firmwide Risk Management is overseen and managed on an enterprise-wide basis.

The Firm believes that effective risk management requires:

- Acceptance of responsibility, including escalation of risk issues, by all individuals within the Firm;
- Ownership of risk assessment, data and management within each line of business ("**LOB**") and corporate functions; and
- Firmwide structures for risk governance.

The Firm follows a disciplined and balanced compensation framework with strong internal governance and independent Board oversight, with delegation to a local remuneration committee.

A regional governance structure has been established to allow the Board to delegate certain matters, not included in the Matters Reserved for the Board, to a governance framework. The Board monitors and periodically assesses the effectiveness of this governance framework and takes appropriate steps to address any deficiencies. The Board may also delegate levels of authority to senior management, and has responsibility for providing effective oversight of these individuals.

The Board delegates certain matters to a number of key regional committees, including for regional risk control and oversight. The EMEA governance framework connects legal entity, line of business and global governance structures. In addition, the Board is supported by the UK Audit & Compliance Committee and UK Remuneration Committee, which are staffed by independent non-executive directors of J.P. Morgan Securities plc.

The Firm has established a Corporate Governance Policy - Firmwide that sets out the expectations that the Firm has of the directors of the material entities within the Group; this policy applies to the Company. Its provisions cover, among other things, board meeting attendance and board composition. The policy seeks to establish an internal governance framework, as set out in the Internal Governance Guidelines.

Engagement with regulators

The Company's board and senior leaders commit significant time to meeting with regulators. Frequent interaction helps the Company learn first-hand from regulators about matters of importance to them and their expectations of the Company. It also gives the Company's board and management a forum for keeping our regulators well-informed about the Company's performance and business practices.

Under the FCA Principles, a firm must deal with its regulators in an open and cooperative way, and must disclose to the FCA appropriately anything relating to the firm of which that regulator would reasonably expect notice. In adhering to this principle, the Company's directors and senior managers (under SMCR) regularly meet with the FCA to discuss matters relating to the regulatory supervision of the Company.

Engagement with customers and suppliers

The Company is committed to always deal fairly, ethically and in good faith with its customers, suppliers, competitors, business partners, regulators and employees. Discrimination, harassment or inappropriate or abusive conduct by or against of its stakeholders is not tolerated. In addition to compliance with applicable laws and regulations, the Company expects all its employees to hold themselves to the highest standards of ethical conduct and has put in place comprehensive policies and procedures to monitor culture and conduct within the organisation. Trust is essential to the organisation's business success and particular focus has been put on being a reliable steward of customers and suppliers' information, whether that information relates to financial, personal or business matters.

The Company works to achieve a competitive advantage through superior products and services, never through unethical or illegal business practices. The organisation prohibits taking unfair advantage of any of its stakeholders through manipulation, concealment, abuse of privileged or confidential information, misrepresentation of material facts or any other unfair dealings or practices. In addition, the Company has fiduciary obligations to its clients to act in their best interest and avoids or otherwise addresses through controls, disclosures or other appropriate steps, any actual or potential conflicts of interest. Accountability, transparency and integrity are the cornerstones of doing good business, which includes simplifying disclosures, products and operations, and effectively managing environmental, social and governance matters. This preserves the organisation's reputation for integrity. In line with UK legal requirements, the Company discloses its payment practices information on a semi-annual basis.

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Strategic report (continued)

Statement by the Directors in performance of their statutory duties in accordance with s172 (1) Companies Act 2006 (continued)

Engagement with customers and suppliers (continued)

The Firm's Business Principles set out the Firm's focus on the customer:

- Exceed expectations by listening to customers and anticipating their needs, making it easy for them to do business with us
- Earn trust by always focusing on customers' best interests; high-quality customers will grow along with the Company
- Give customers a good, fair deal - offer high-quality, competitively priced products and services
- Consider the full range of products and services that will fit customer needs, cross selling when appropriate
- Never allow short-term profit considerations to get in the way of doing what's right for the customer
- Use our own products - when it comes to understanding the customer, nothing beats being a customer

Engagement with employees

The Firm's Business Principles set out the Firm's principles relating to "A Great Team and Winning Culture", including in relation to recruitment and retention, diversity, teamwork, meritocracy, communication and leadership.

The JPMC board is committed to maintaining a strong corporate culture that instils and enhances a sense of personal accountability on the part of all of the Firm's employees. In addition to discussions at Board meetings with senior management about these efforts, JPMC directors participate in meetings with employees to emphasize this commitment. These meetings include employee town halls, lines of business and leadership team events, annual senior leaders' meetings and informal sessions with members of the JPMC Operating Committee and other senior leaders. In addition, the Firm conducts a periodic Employee Opinion Survey, the results of which are shared with the Company's board for discussion and feedback is taken and actioned upon by management.

Environmental, Social and Governance matters

The Firm engages with numerous non-governmental organisations on a diverse range of issues that are important to communities and consumers about the Firm's business. The Firm also engages with organisations on environmental and social issues and provides philanthropic support to a broad range of non-profit organisations that work on issues that are important to the Firm. Management shares insights and feedback from these relationships and engagements with the JPMC board, providing the board with valuable insights to the issues that matter to the Firm's various stakeholders. This helps the Firm understand how the Firm's products and services can better serve its stakeholders and the communities in which it operates.

The Firm is committed to being transparent about how we do business and reporting on its efforts. One way the Firm does this is by publishing an annual ESG Report, which provides information on how the Firm is addressing Environmental, Social and Governance matters that it and its stakeholders view as among the most important to the Firm's business.

Engagement and transparency with the Firm's stakeholders help the Firm gain useful feedback and help us improve our governance processes.

The board will continue to review and challenge how the Company can improve engagement with its employees and stakeholders and further enhance its decision-making processes in line with section 172(1) of the Companies Act 2006 throughout 2020 and beyond.

For further information on the corporate governance related disclosures made by the Company, please see:

- JPMorgan Chase & Co. Business Principles: <https://www.jpmorganchase.com/corporate/About-JPMC/ab-business-principles.htm>
- JPMorgan Chase & Co. Annual Meeting of Shareholders Proxy Statement: <https://www.jpmorganchase.com/corporate/investor-relations/document/proxy-statement2019.pdf>
- Capital Requirements Directive IV (2013/36/EU) governance disclosures: <https://www.jpmorgan.com/jmpm/pdf/1320747737676.pdf> ("CRD IV Disclosures")
- Gender Diversity on EMEA Boards: <https://www.jpmorgan.com/global/emea/crd4>
- Environmental Social and Governance Report: <https://www.jpmorganchase.com/corporate/Corporate-Responsibility/document/jpmc-cr-esg-report-2018.pdf> This links to the 2018 edition of the report. The 2019 report is expected to be published in May 2020.

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Strategic report (continued)

Statement by the Directors in performance of their statutory duties in accordance with s172 (1) Companies Act 2006 (continued)

Environmental, Social and Governance matters (continued)

- Corporate Responsibility Report: <https://reports.jpmorganchase.com/corporate-responsibility/2018/cr-2018-home.htm> This links to the 2018 edition of the report. The 2019 report is expected to be published in May 2020.
- Transparency Statement under s.54 of the Modern Slavery Act 2015: <https://www.jpmorganchase.com/corporate/About-JPMC/document/modern-slavery-act-2018.pdf> This links to the Transparency Statement for 2018. The 2019 Transparency Statement is expected to be published in June 2020.

Risk management

JPMorgan Chase's risk governance structure is based on the principle that each line of business is responsible for managing the risk inherent in its business, albeit with appropriate corporate oversight. Each LOB risk committee is responsible for decisions regarding the business risk strategy, policies (as appropriate) and controls. Therefore, each LOB within the Company forms part of the firmwide risk governance structure.

To complement the global line of business structure, legal entity risk oversight is performed by the EMEA Risk Committee ("ERC"). The ERC provides oversight of the risks inherent in the Firm's business conducted in EMEA or booked into EMEA entities and relevant branches as well as EMEA branches of ex-EMEA firms. The ERC is accountable to the EMEA Management Committee (EMC) and the Company's Risk Committee.

Risk Management oversight of legal entity ("LEs") is executed according to the risk profile of a LE. The risk profile of a LE is derived by applying the LE Risk Tiering methodology, the result of which will determine a LE's 'Risk Tier'. Risk Tiering comprises four categories ranging from one to four, with Risk Tier one representing the highest requirement for LE Risk governance and oversight. The tiering methodology is comprised of qualitative and quantitative elements and a different level of oversight is established for each Tier, driven by a range of internal and external risk governance requirements. The core and recommended governance standards have been created for each Tier of governance. The Company has been assigned Tier 2 under this framework. Oversight of Tier 2 and 3 entities (including J. P. Morgan Markets Limited) is delegated to the EMEA Risk Forum, a sub-forum of the ERC.

All disclosures in the Risk management section (pages 5-16) are unaudited unless otherwise stated.

The following sections outline the key risks that are inherent in the Company's business activities.

A detailed description of the policies and processes adopted by the Firm may be found within the JPMorgan Chase & Co. 2019 Annual Report on Form 10-K. The report is available at <https://jpmorganchaseco.gcs-web.com/financial-information/sec-filings>

Capital risk (audited)

Capital risk is the risk the Company has an insufficient level or composition of capital to support the Company's business activities and associated risks during both normal economic environments and under stressed conditions.

A strong capital position is essential to the Company's business strategy and competitive position. The Firm and Company's capital management strategy focuses on maintaining long-term stability to enable the Firm to build and invest in market-leading businesses, even in a highly stressed environment. Prior to making any decisions on future business activities, senior management considers the implications on the Company's capital.

Key capital risks include the risk of not meeting capital requirements including the impact of adverse changes in FX rates impacting capital ratios.

Accordingly, its capital management framework is designed to ensure that the Company is adequately capitalised at all times primarily in relation to:

- Minimum risk-based regulatory capital requirements (Pillar 1 capital under CRD IV^(a) plus Pillar 2A set by the PRA and relevant CRD IV buffers);
- Assumed minimum leverage requirements^(b) (calculated per the final rules in the Capital Requirements Regulation ("CRR") post the delegated act (October 2014));
- The risks faced by the entity, through regular comparisons of regulatory and internal capital requirements;
- Changes in FX rates that may impact the capital ratios of the Company due to mismatches between the currency in which Risk Weighted Assets ("RWAs") are denominated and the equity is being held (U.S. dollar); and
- Senior management's risk appetite expressed, for example, through the application of an internal capital buffer and preferred minimum capital ratios above those prescribed in regulation.

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Strategic report (continued)

Risk management (continued)

Capital risk (audited) (continued)

The framework used to manage capital is based around a regular cycle of point-in-time capital calculations and reporting, supplemented by forward-looking projections and stress-testing, with corrective action taken as and when required to maintain an appropriate level of capitalisation. Each part of the process is subject to rigorous control. Escalation of issues is driven by a business as usual ("BAU") framework of specific triggers, set in terms of capital and leverage ratios, movements in those ratios, and other measures.

In addition to the BAU capital monitoring framework, through the quarterly Internal Capital Adequacy Assessment Process ("ICAAP"), the Company ensures that it is adequately capitalised in relation to its risk profile and appetite, not only as at the ICAAP date, but through the economic cycle and under a range of severe but plausible stress scenarios. The quarterly ICAAP results are reviewed by the EMEA Capital Committee and annually, the ICAAP is reviewed and approved by the Board of Directors. In addition, the annual 'reverse stress testing' exercise is used to identify potential, extreme scenarios which might threaten the viability of the Company's business model, so that any required mitigation can be put in place.

FX Risk to Capital Ratio

Changes in FX rates may impact the capital ratios of the Company due to mismatches between the currency in which Risk Weighted Assets ("RWAs") are denominated and the functional currency (U.S. dollar). The Non-U.S. dollar FX risk to capital ratio is managed through the capital stress testing program which tests the Company and Firm's financial resilience in a range of severe economic and market conditions.

The composition of the Company's capital is as follows. All tiers of capital are shown net of applicable deductions.

	2019	2018
	\$'000	\$'000
Common Equity Tier 1 (equity share capital and reserves)	4,208,018	4,137,008
Total Capital Resources	4,208,018	4,137,008
Pillar 1 capital requirement (unaudited)	31,765	24,780
Excess of total capital resources over Pillar 1 capital requirements (unaudited)	4,176,253	4,112,228
Pillar 1 capital ratio (unaudited)	1,060%	1,336%

As of 31 December 2019 and 2018, the Company was adequately capitalised and met all external capital requirements. Capital resources utilised to calculate capital ratios are inclusive of audited current year profits. Additionally, the operational risk requirement included within the Pillar 1 Capital Requirement has been recalculated to incorporate current year net income.

Company information is included as part of the Pillar 3 disclosures and is made available on the Firm's website (<https://jpmorganchaseco.gcs-web.com/financial-information/basel-pillar-3-us-lcr-disclosures>) in accordance with Part Eight of the European Capital Requirements Regulation. These are published on an annual basis or more frequently where the Firm has assessed a further need to do so under the guidelines (EBA GL2014/14) set out by the European Banking Authority. These disclosures are not subject to external audit.

^(a) CRD IV implemented Basel III in the EU, and came into force on 1 January 2014.

^(b) Disclosure requirement applicable from 1 January 2015.

Credit risk (audited)

Credit risk is the risk associated with the default or change in credit profile of a client, counterparty or customer. Credit risk management is an independent risk management function that monitors, measures and manages credit risk throughout the Firm and defines credit risk policies and procedures. The credit risk function reports to the Firm's Chief Risk Officer ("CRO").

The primary business in the Company is cash trading in relation to US issuance of US securities that require a non-bank entity to book sales to a European client base. The transactions are on a Delivery Versus Payment basis and are done on a matched booked basis (the Company buys and sells simultaneously onto the end client). No inventory is held in the Company. Credit risk, if it occurs, is due to the failure of bond sales or purchases.

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Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

As at year-end 2019, there was a small derivative position with one external counterparty and one security financing trade, which were novated to the Company following the acquisition of assets from RBS Sempra in 2010. In addition the Company has Treasury activity related exposure to internal counterparties, in the form of reverse repurchase and derivative positions.

Risk identification

The Credit Risk Management function monitors, measures, manages and limits credit risk across the Firm's businesses. To measure credit risk, the Firm employs several methodologies for estimating the likelihood of obligor or counterparty default. Methodologies for measuring credit risk vary depending on several factors, including type of asset, risk measurement parameters, and risk management and collection processes. Credit risk measurement is based on the probability of default of an obligor or counterparty, the loss severity given a default event and the exposure at default.

Risk monitoring and management

The Company is subject to the policies and practices developed by the Firm. The policy framework establishes credit approval authorities, concentration limits, risk-rating methodologies, portfolio review parameters and guidelines for management of distressed exposures. In addition, certain models, assumptions and inputs used in evaluating and monitoring credit risk are independently validated by groups that are separate from the LOB.

Credit risk is monitored regularly at an aggregate portfolio, industry, and individual client and counterparty level with established concentration limits that are reviewed and revised as deemed appropriate by management, typically on an annual basis. Industry and counterparty limits, as measured in terms of exposure and economic risk appetite, are subject to stress-based loss constraints. In addition, wrong-way risk (the risk that exposure to a counterparty is positively correlated with the impact of a default by the same counterparty, which could cause exposure to increase at the same time as the counterparties capacity to meet its obligations is decreasing) is actively monitored as this risk could result in greater exposure at default compared with a transaction with another counterparty that does not have this risk.

Management of the Firm's credit risk exposure is accomplished through a number of means, including:

- Loan underwriting and credit approval process
- Loan syndications and participations
- Loan sales and securitisations
- Credit derivatives
- Master netting agreements
- Collateral and other risk-reduction techniques

Expected credit loss measurement

Approach to measuring expected credit losses

The Company estimates credit impairment through an allowance for expected credit losses ("ECLs"). ECLs are recognised for financial assets that are measured at amortised cost. The measurement of ECLs must reflect:

- (a) An unbiased and probability weighted amount that is determined by evaluating a range of possible outcomes;
- (b) The time value of money; and
- (c) Reasonable and supportable information about past events, current economic conditions, and forecasts of future economic conditions.

The measurement of ECL also reflects how the Company manages the financial instruments it uses for credit risk purposes such as Traditional Credit Products ("TCP"), and non-traditional credit products ("Non-TCP"). The Company does not hold any TCP instruments. Non-TCP consist of financial assets measured at amortised cost which include debtors, securities purchased under resale agreements and cash and cash equivalents.

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Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Expected credit loss measurement (continued)

Approach to measuring expected credit losses (continued)

The following table sets out the balances of the Company's financial assets that are measured at amortised cost within the Non-TCP category:

Balance sheet categories	Non-TCP \$'000
Assets	
Securities purchased under resale agreements	4,076,575
Debtors	167,636
Other assets	64,463
Cash and cash equivalents	134,519
	4,443,193

For Non-TCPs, the Company utilises a combination of an established provision matrix, as well as quantitative and qualitative considerations to estimate ECLs.

During the year, the Company recognised no ECL on non-TCP balances as the ECL related to these exposures is assessed as immaterial. The Company's approach to measuring ECLs for Non-TCP portfolios depends on the type of instrument. Refer to the Credit exposures section for an analysis per balance sheet line item.

Credit exposures

Balance sheet exposure by financial asset

The following tables provide an analysis of the credit risk exposure to financial assets. The gross balance sheet exposure of financial assets below also represents the Company's maximum exposure to credit risk on these assets. Gross balance sheet exposure is reported on a net-by-counterparty basis for derivatives and securities purchased under agreements to resell when the legal right and intention of offset exists under an enforceable netting agreement as required under IAS 32 'Financial Instruments: Presentation' ("IAS 32"). Net exposure is presented after taking account of assets which are primarily exposed to market risk, enforceable master netting agreements (where the offsetting criteria under IAS 32 is not met) and the value of collateral received in respect of financial assets.

	Gross balance sheet exposure \$'000	Exposures captured by market risk \$'000	Risk mitigants		Net credit exposure \$'000	Net balance sheet exposure held with:	
			Master netting agreements and other \$'000	Cash & security collateral \$'000		JPMorgan Chase undertakings \$'000	External counter parties \$'000
At 31 December 2019							
Financial assets:							
Financial assets held at fair value through profit or loss	11,107	(9,700)	(879)	—	528	—	528
Securities purchased under resale agreements	4,076,575	—	—	(4,076,575)	—	—	—
Debtors	167,636	—	—	—	167,636	121,209	46,427
Other assets	64,463	—	—	—	64,463	—	64,463
Cash and cash equivalents	134,519	—	—	—	134,519	134,519	—
Total	4,454,300	(9,700)	(879)	(4,076,575)	367,146	255,728	111,418

J.P. MORGAN MARKETS LIMITED

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Credit exposures (continued)

Balance sheet exposure by financial asset (continued)

	Gross balance sheet exposure	Assets captured by market risk	Master netting agreements and other	Cash & security collateral	Net exposure after risk mitigants	Net balance sheet exposure held with:	
						JPMorgan Chase undertakings	External counter parties
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
At 31 December 2018							
Financial assets:							
Financial assets held at fair value through profit or loss	11,457	(9,677)	(880)	—	900	—	900
Securities purchased under resale agreements	4,087,246	—	—	(4,087,246)	—	—	—
Debtors	228,399	—	—	—	228,399	196,941	31,458
Other assets	7,235	—	—	—	7,235	—	7,235
Cash and cash equivalents	20,243	—	—	—	20,243	20,243	—
Total	4,354,580	(9,677)	(880)	(4,087,246)	256,777	217,184	39,593

The Company's credit exposures and credit risk mitigants are further described below. As no material ECL allowance is recognised on Non-TCP financial assets, refer below for further discussion.

Securities purchased under agreements to resell

The Company generally bears credit risk related to resale agreements and securities borrowed where cash advanced to the counterparty exceeds the expected value of the collateral received on default. The Company's credit exposure on these transactions is therefore significantly lower than the amounts recorded on the balance sheet, which for the substantial majority represent contractual value before consideration of any collateral received.

Securities financing arrangements tend to be short-term in nature with no history of credit losses. These arrangements are included in Stage 1 as the Company has determined there is no material significant increase in credit risk ('SICR') during the short tenor of the instrument. The Company recognises no ECL on these balances as the ECL related to these exposures is assessed as immaterial.

Debtors

Debtors mainly consist of amounts due from JPMorgan Chase undertakings.

The majority of amounts due from JPMorgan Chase undertakings are with a borrower who is a Material Legal Entity ("MLE"). As MLEs are adequately capitalised to ensure the MLE can fulfil all of its debt obligations even in the event of an orderly liquidation of JPMorgan Chase and are of investment grade, these inter-company receivables are included in Stage 1 as they are held with MLEs and considered to not have an increase in credit risk that would result in material expected credit losses. Receivables from MLEs are only included in Stage 2 if the obligor is no longer considered an MLE and there is evidence of credit deterioration of the obligor, or if certain support triggers defined in the JPMorgan Chase's Resolution Plan occur. Receivables from MLEs are not credit-impaired as the Firm ensures MLEs are more than adequately capitalised as required by the Firm's Resolution Plan. The Company recognises no ECL on these balances as the ECL related to these exposures is assessed as immaterial.

Cash and cash equivalents

The Company places substantially all of its deposits with banks which are of investment-grade. The Company includes cash and cash equivalents in Stage 1 as investment-grade institutions are considered to have high quality credit with low risk of default and therefore a significant increase in credit risk is not deemed probable or material. The Company recognises no ECL on these balances as the ECL related to these exposures is assessed as immaterial.

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Strategic report (continued)

Risk management (continued)

Liquidity risk (audited)

Liquidity risk is the risk that the Company will be unable to meet its contractual and contingent financial obligations as they arise or that it does not have the appropriate amount, composition and tenor of funding and liquidity to support its assets and liabilities.

Liquidity risk oversight

The Firm has a Liquidity Risk Oversight function whose primary objective is to provide independent assessment, measurement, monitoring, and control of liquidity risk across the Firm. Liquidity Risk Oversight's responsibilities include:

- Defining, monitoring and reporting liquidity risk metrics;
- Establishing and monitoring limits and indicators including liquidity risk appetite;
- Developing a process to classify, monitor and report limit breaches;
- Performing an independent review of liquidity risk management processes;
- Monitoring and reporting internal Firmwide and legal entity liquidity stress tests as well as regulatory defined liquidity stress tests;
- Approving or escalating for review new or updated liquidity stress assumptions; and
- Monitoring liquidity positions, balance sheet variances and funding activities.

Liquidity management

Treasury and Chief investment Office ("CIO") are responsible for liquidity management. The primary objectives of effective liquidity management are to:

- Ensure that the Firm's core businesses and material legal entities are able to operate in support of client needs and meet contractual and contingent financial obligations through normal economic cycles as well as during stress events, and
- Manage an optimal funding mix, and availability of liquidity sources.

As part of the Firm's overall liquidity management strategy, the Firm manages liquidity and funding using a centralised, global approach in order to:

- Optimise liquidity sources and uses;
- Monitor exposures;
- Identify constraints on the transfer of liquidity between the Firm's legal entities; and
- Maintain the appropriate amount of surplus liquidity at a Firmwide and legal entity level, where relevant.

In the context of the Firm's liquidity management, Treasury and CIO is responsible for:

- Analysing and understanding the liquidity characteristics of the assets and liabilities of the Firm, lines of business and legal entities, taking into account legal, regulatory, and operational restrictions;
- Developing internal liquidity stress testing assumptions;
- Defining and monitoring Firmwide and legal entity-specific liquidity strategies, policies, guidelines, reporting and contingency funding plans;
- Managing liquidity within approved liquidity risk appetite tolerances and limits;
- Managing compliance with regulatory requirements related to funding and liquidity risk; and
- Setting transfer pricing in accordance with underlying liquidity characteristics of balance sheet assets and liabilities as well as certain off-balance sheet items.

The Company is locally subject to the FCA liquidity regulations. The key elements of the regulations are to ensure the Company has adequate liquidity and self-sufficiency of liquidity resources and that it has systems and controls in place to monitor this. The Company's funding strategy is intended to ensure that it will have sufficient liquidity and diversity of funding sources necessary to enable it to meet actual and contingent financial liabilities during both normal and stress periods and meeting the Internal Liquidity Guidance requirement.

Risk governance and measurement

Committees responsible for liquidity governance include the Firmwide Asset and Liability Committee ("ALCO"), as well as line of business and regional ALCOs, Treasurer Committee and Corporate ("CTC") Risk Committee. In addition, the Board Risk Committee reviews and recommends to the Board of Directors, for formal approval, the Firm's liquidity risk tolerances, liquidity strategy, and liquidity policy.

J.P. MORGAN MARKETS LIMITED

Strategic report (continued)

Risk management (continued)

Liquidity risk (audited) (continued)

Internal stress testing

Liquidity stress tests are intended to ensure that the Company has sufficient liquidity under a variety of adverse scenarios, including scenarios analysed as part of the Firm's resolution and recovery planning. Stress scenarios are produced for the Company on a regular basis and other stress tests are performed in response to specific market events or concerns. Liquidity stress tests assume all of the Company's contractual financial obligations are met and take into consideration:

- Varying levels of access to unsecured and secured funding markets;
- Estimated non-contractual and contingent cash outflows; and
- Potential impediments to the availability and transferability of liquidity between jurisdictions and material legal entities such as regulatory, legal or other restrictions.

Liquidity outflow assumptions are modelled across a range of time horizons and currency dimensions and contemplate both market and idiosyncratic stress.

Results of stress tests are considered in the formulation of the Company's funding plan and assessment of its liquidity position.

Contingency funding plan

The Firm's contingency funding plan ("CFP") is approved by the Firmwide ALCO and the Board Risk Committee. The Company's addendum to the CFP is approved by the Company's Board of Directors. The CFP and the addendum is a compilation of procedures and action plans for managing liquidity through stress events. The CFP and the addendum incorporate the limits and indicators set by the Liquidity Risk Oversight group. These limits and indicators are reviewed regularly to identify emerging risks or vulnerabilities in the Company's liquidity position. The CFP identifies the alternative contingent funding and liquidity resources available to the Company in a period of stress.

Funding

The directors believe that the Company's unsecured and secured funding capacity is sufficient to meet its on and off-balance sheet obligations.

The following table provides details on the contractual maturity of all financial liabilities:

	2019			2018		
	Less than 1 year	More than 1 year	Total	Less than 1 year	More than 1 year	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Bank overdraft	2,006	—	2,006	1,222	—	1,222
Trade creditors	59,000	—	59,000	65,401	—	65,401
Financial liabilities held at fair value through profit or loss	1,811	—	1,811	1,801	—	1,801
Amounts owed to JPMorgan Chase undertakings	33,399	—	33,399	77,278	—	77,278
Other liabilities	11,715	—	11,715	3,868	—	3,868
	107,931	—	107,931	149,570	—	149,570

Trade creditors predominantly include brokerage payables which have short-dated maturities. Financial liabilities held at fair value through profit or loss primarily include derivatives and are ordinarily classified as liabilities falling due within one year for the purpose of disclosure under IFRS 7 'Financial Instruments: Disclosures'.

J.P. MORGAN MARKETS LIMITED

Strategic report (continued)

Risk management (continued)

Market risk (audited)

Market risk is the risk associated with the effect of changes in market factors such as interest and foreign exchange rates, equity and commodity prices, credit spreads or implied volatilities, on the value of assets and liabilities held for both the short and long term.

The following sections detail the market risk management framework at both the Firmwide and Company levels.

Market Risk Management monitors market risks throughout the Firm and defines market risk policies, procedures and other guidance as appropriate. The Market Risk Management function reports to the Firm's Chief Risk Officer ("CRO"), and seeks to manage risk, facilitate efficient risk/return decisions, reduce volatility in operating performance and provide transparency into the Firm's market risk profile for senior management, the Board of Directors and regulators.

Risk Governance & Framework

The Company's approach to market risk governance mirrors the Firmwide approach and is outlined in the Company's Market Risk Management Framework. The Company's Market Risk Management Framework outlines the following:

- Responsibilities of the Legal Entity Risk Manager ("LERM") and Market Risk Officer ("MRO")
- Market Risk measure utilised, i.e. Value-at-Risk ("VaR")
- Controls such as the Company's market risk limit framework (limit levels, limit signatories, limit reviews and escalation)

The Company's Board of Directors approves substantive changes to the Framework and approves this Framework annually.

Risk Measurement

There is no single measure to capture market risk and therefore the Firm uses various metrics both statistical and non-statistical to assess risk. The Company utilises statistical measures to capture risk. The appropriate set of risk measures utilised for a given business activity is tailored based on business mandate, risk horizon, materiality, market volatility and other factors.

Value-at-Risk ("VaR")

The Firm utilises VaR, a statistical risk measure, to estimate the potential loss from adverse market moves in the current market environment.

The VaR framework is employed across the Firm using historical simulation based on data for the previous 12 months. VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 95% confidence level. These VaR results are reported to senior management, the Firm's Board of Directors and regulators.

The Company applies the Firmwide approach for VaR as described above, for internal risk management purposes.

The table below shows the result of the Company's VaR:

	2019			2018			At 31 December	
	Avg.	Min	Max	Avg.	Min	Max	2019	2018
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
95 % VaR	57	3	86	31	23	54	71	45

The Company's market risk exposure is not material, the low level of VaR is normally driven by residual FX/IR positions across businesses. Of the standard stress scenarios that the Company is subject to, the worst case stress loss during 2019 was primarily driven by the USD Crisis scenario.

J.P. MORGAN MARKETS LIMITED

Strategic report (continued)

Risk management (continued)

Market risk (audited) (continued)

Risk Monitoring and Control

Limits

Market risk limits are employed as the primary control to align the Firm's market risk with certain quantitative parameters within the Firm's Risk Appetite framework.

Market Risk sets limits and regularly reviews and updates them as appropriate, with any changes approved by Firm or LOB or Company management, as appropriate, and Market Risk. Limits that have not been reviewed within a specified time period by Market Risk are escalated to senior management.

Limit breaches are required to be reported in a timely manner to limit approvers, which include Market Risk and senior management. In the event of a limit breach, Market Risk consults with senior management to determine the course of action required to return to compliance, which may include a reduction in risk in order to remedy the breach or granting a temporary increase in limits to accommodate an expected increase in client activities and/or market volatility. Certain Firm, LOB or Company level limit breaches are escalated to senior management, the LOB Risk Committee, Regional Risk Committee and/or the Firmwide Risk Committee, as appropriate.

The Company's limits include VaR and Stress limits established for the legal entity, in aggregate.

The Company's LERM and Market Risk Officer ('MRO') are the limit approvers of the limit for the legal entity, in aggregate.

Risk Reporting

The Firm and the Company have their own set of regular market risk reports, which include daily notifications of limit utilisations and limit breaches and where applicable, granular market risk metrics which provide transparency into potential risk concentrations.

Operational risk

Operational risk is the risk associated with an adverse outcome resulting from inadequate or failed internal processes or systems; human factors or external events impacting the Firm's processes or systems; it includes compliance risk, conduct risk, legal risk and estimations and model risk.

Operational risk is inherent in the Company's activities and can manifest itself in various ways, including fraudulent acts, business interruptions, cybersecurity attacks, inappropriate employee behaviour, failure to comply with applicable laws, and regulations or failure of vendors to perform in accordance with their agreements. Operational Risk Management attempts to manage operational risk at appropriate levels in light of the Company's financial position, the characteristics of its businesses, and the markets and regulatory environments in which it operates.

Risk management

The Firm's Compliance, Conduct, and Operational Risk ("CCOR") Management Framework is designed to enable the Firm to govern, identify, measure, monitor and test, manage and report on the Firm's operational risk. The Company's approach mirrors the Firmwide approach.

Operational risk can manifest itself in various ways. Operational risk subcategories such as Compliance risk, Conduct risk, Legal risk and Estimations and Model risk, as well as other operational risks, can lead to losses which are captured through the Firm's operational risk measurement processes. More information on these risk subcategories, where relevant, can be found in the respective risk management sections.

J.P. MORGAN MARKETS LIMITED

Strategic report (continued)

Risk management (continued)

Operational risk (continued)

Cybersecurity risk

Cybersecurity risk is an important, continuous and evolving focus for the Firm. The Firm devotes significant resources to protecting and continuing to improve the security of its computer systems, software, networks and other technology assets. The Firm's security efforts are designed to protect against, among other things, cybersecurity attacks by unauthorized parties attempting to obtain access to confidential information, destroy data, disrupt or degrade service, sabotage systems or cause other damage. The Firm continues to make significant investments in enhancing its cyberdefense capabilities and to strengthen its partnerships with the appropriate government and law enforcement agencies and other businesses in order to understand the full spectrum of cybersecurity risks in the operating environment, enhance defenses and improve resiliency against cybersecurity threats. The Firm actively participates in discussions of cybersecurity risks with law enforcement, government officials, peer and industry groups, and has significantly increased efforts to educate employees and certain clients on the topic.

Third parties with which the Company does business or that facilitate the Company's business activities (e.g. vendors) are also sources of cybersecurity risk to the Company. Third party cybersecurity incidents such as system breakdowns or failures, misconduct by the employees of such parties, or cyberattacks could affect their ability to deliver a product or service to the Company or result in lost or compromised information of the Company or its clients. Clients can also be sources of cybersecurity risk to the Company, particularly when their activities and systems are beyond the Company's own security and control systems. As a result, the Company engages in regular and ongoing discussions with certain vendors and clients regarding cybersecurity risks and opportunities to improve security. However, where cybersecurity incidents are due to client failure to maintain the security of their own systems and processes, clients are responsible for losses incurred.

To protect the confidentiality, integrity and availability of the Firm's infrastructure, resources and information, the Firm maintains a cybersecurity program designed to prevent, detect, and respond to cyberattacks. The Audit Committee is updated periodically on the Firm's Information Security Program, recommended changes, cybersecurity policies and practices, ongoing efforts to improve security, as well as its efforts regarding significant cybersecurity events.

Business resiliency risk

The Firm is monitoring the COVID-19 pandemic closely, based on the guidance being provided by the relevant health and government authorities, and continues to implement protocols and processes in response to the spread of the virus. The Firm has organised a central team to continue to consider what steps should be taken around the globe to protect our employees, prepare our businesses, and serve our clients and the communities where we live and work. In addition, teams across functions, businesses and regions continue to meet regularly to understand the global situation and to ensure any emerging developments relating to the well-being of our employees or the resiliency of our businesses are addressed quickly. Our business remains operational and senior leaders across the firm continue to monitor operational metrics.

Compliance risk

Compliance risk, a subcategory of operational risk, is the risk of failing to comply with laws, rules, regulations or codes of conduct and standards of self-regulatory organisations applicable to the business activities of the Firm.

Each LOB and Corporate within the Company holds primary ownership and accountability for managing compliance risks. The Firm's Compliance Organisation ("Compliance"), which is independent of the line of business, works closely with senior management to provide independent review, monitoring and oversight of business operations with a focus on compliance with the regulatory obligations applicable to the offering of the Firm's products and services to clients and customers.

These compliance risks relate to a wide variety of legal and regulatory obligations, depending on the LOB and the jurisdiction, and include those related to products and services, relationships and interactions with clients and customers, and employee activities. For example, compliance risks include those associated with anti-money laundering compliance, trading activities, market conduct, and complying with the rules and regulations related to the offering of products and services across jurisdictional borders. Compliance risk is also inherent in the Firm's activities, including a failure to exercise an applicable standard of care, to act in the best interest of clients and customers or to treat clients and customers fairly.

Other functions provide oversight of significant regulatory obligations that are specific to their respective areas of responsibility.

CCOR Management implements policies and standards designed to govern, identify, measure, monitor and test, manage, and report compliance risk.

Governance and oversight

Compliance is led by the Firm's Chief Compliance Officer ("CCO") who reports to the Firm's CRO. The regional CCOs, including the EMEACCO, are part of this structure. The Firm maintains oversight and coordination of its compliance risk through the implementation of the CCOR Risk Management Framework. At a Company level, in the UK the regional CCO is a member of the EMEA Management Committee and the UK Audit & Compliance Committee.

J.P. MORGAN MARKETS LIMITED

Strategic report (continued)

Risk management (continued)

Compliance risk (continued)

Code of Conduct

The Firm has a Code of Conduct (“Code”) that sets out the Firm’s expectation that employees will conduct themselves with integrity at all times and provides the principles that govern employee conduct with clients, customers, shareholders and one another, as well as with the markets and communities in which the Firm does business. The Code requires employees to promptly report any known or suspected violation of the Code, any internal Firm policy, or any law or regulation applicable to the Firm’s business. It also requires employees to report any illegal conduct, or conduct that violates the underlying principles of the Code, by any of the Firm’s employees, customers, suppliers, contract workers, business partners, or agents.

All newly hired employees are assigned Code training and current employees are periodically assigned Code training on an ongoing basis. Employees are required to affirm their compliance with the Code periodically. Employees can report any potential or actual violations of the Code through the Code Reporting Hotline by phone or the internet. It is administered by an outside service provider. The Code prohibits retaliation against anyone who raises an issue or concern in good faith.

Legal risk

Legal risk is the risk of loss primarily caused by the actual or alleged failure to meet legal obligations that arise from the rule of law in jurisdictions in which the Firm and the Company operates, agreements with clients and customers, and products and services offered by the Company and the Firm.

Overview

The global Legal function (“Legal”) provides legal services and advice to the Company and the Firm. Legal is responsible for managing the Firm’s exposure to legal risk by:

- Managing actual and potential litigation and enforcement matters, including internal reviews and investigations related to such matters;
- Advising on products and services, including contract negotiation and documentation;
- Advising on offering and marketing documents and new business initiatives;
- Managing dispute resolution;
- Interpreting existing laws, rules and regulations, and advising on changes thereto;
- Advising on advocacy in connection with contemplated and proposed laws, rules and regulations; and
- Providing legal advice to the LOBs, inclusive of LOB aligned Operations, Technology and Oversight & Controls (the “first line of defence”), Risk Management and Compliance (the “second line of defence”), and the Internal Audit function (the “third line of defence”).

Legal selects, engages and manages outside counsel for the Firm on all matters in which outside counsel is engaged. In addition, Legal advises the Firm’s Conflicts Office which reviews the Firm’s wholesale transactions that may have the potential to create conflicts of interest for the Firm.

Governance and oversight

The Firm’s General Counsel reports to the CEO and is a member of the Operating Committee, the Firmwide Risk Committee and the Firmwide Control Committee. The Firm’s General Counsel and other members of Legal report on significant legal matters to the Firm’s Board of Directors and periodically to the Audit Committee. Each region, including EMEA, has a General Counsel who is responsible for managing legal risk across all lines of business and functions in the region. Legal serves on and advises various committees (including new business initiative and reputation risk committees) and advises the Firm’s LOBs and Corporate on potential reputation risk issues.

Reputation risk

Reputation risk is the risk that an action or inaction may negatively impact the Firm’s integrity and reduce confidence in the Firm’s competence held by various constituents, including clients, counterparties, customers, investors, regulators, employees, communities or the broader public.

Organisation and management

Reputation Risk Management is an independent risk management function that establishes the governance framework for managing reputation risk across the Firm. As reputation risk is inherently difficult to identify, manage, and quantify, an independent reputation risk management governance function is critical.

The Firm’s reputation risk management function includes the following activities:

J.P. MORGAN MARKETS LIMITED

Strategic report (continued)

Risk management (continued)

Reputation risk (continued)

Organisation and management (continued)

- Establishing a Firmwide Reputation Risk Governance policy and standards consistent with the reputation risk framework
- Managing the governance infrastructure and processes that support consistent identification, escalation, management and monitoring of reputation risk issues Firmwide; and
- Providing guidance to LOB Reputation Risk Offices (“RRO”), as appropriate.

The types of events that give rise to reputation risk are broad and could be introduced in various ways, including by the Firm’s employees and the clients, customers and counterparties with which the Firm does business. These events could result in financial losses, litigation and regulatory fines, as well as other damages to the Firm.

Governance and oversight

The Firm’s Reputation Risk Governance policy establishes the principles for managing reputation risk for the Firm. It is the responsibility of employees in each LOB and Corporate to consider the reputation of the Firm when deciding whether to offer a new product, engage in a transaction or client relationship, enter a new jurisdiction, initiate a business process or other matters. Increasingly, sustainability, social responsibility and environmental impacts are important considerations in assessing the Firm’s reputation risk, and are considered as part of reputation risk governance.

Reputation risk issues deemed material are escalated as appropriate.

Critical accounting estimates

The Company’s accounting policies and use of estimates are integral to understanding its reported results. The Company’s most complex accounting estimates require management’s judgement to ascertain the appropriate carrying value of assets and liabilities. The Firm and the Company has established policies and control procedures intended to ensure that estimation methods, including any judgements made as part of such methods, are well-controlled, independently reviewed and applied consistently from period to period. The methods used and judgements made reflect, among other factors, the nature of the assets or liabilities and the related business and risk management strategies, which may vary across the Company’s businesses and portfolios. In addition, the policies and procedures are intended to ensure that the process for changing methodologies occurs in an appropriate manner. The Company believes its estimates for determining the carrying value of its assets and liabilities are appropriate. A description of the Company’s critical accounting estimates involving significant judgements is set out in note 3 to the financial statements.

Corporate employee policy

It is the policy of the Company to ensure equal opportunity for all persons without discrimination on the basis of race, colour, religion, sex, national origin, age, handicap, veteran status, marital status, sexual orientation or any other basis. This policy of equal opportunity applies to all employment practices including, but not limited to, recruiting, hiring, promotion, training and compensation.

Where existing Firm employees become disabled, it is the Company policy wherever practicable to provide continuing employment under normal terms and conditions and to provide training and career development and promotion wherever appropriate.

With the aim of ensuring that views are taken into account when decisions are made Firm employee consultation has continued at all levels where it is likely to affect their interests. All Firm employees are aware of the financial and economic performance of their business units and of the Company as a whole. Communication with all Firm employees continues through the intranet and other forums.

JP Morgan Chase Bank, N.A. operates an employee share scheme for all employees of JPMorgan Chase & Co. and its subsidiaries, to acquire a proprietary and vested interest in the growth and performance of the Firm.

On behalf of the Board



M. Melling

Date: 17 April 2020

J.P. MORGAN MARKETS LIMITED

Directors' report

The directors present their report and the audited financial statements of J.P. Morgan Markets Limited (the "Company") for the year ended 31 December 2019. The Company is part of JPMorgan Chase & Co. (together with its subsidiaries, the "Firm"). The registered number of the Company is 01592029.

Results and dividends

The results for the year are set out on page 21 and show the Company's profit for the financial year after taxation is \$71,087,000 (2018: \$60,323,000).

No dividend was paid or proposed during the year (2018: \$nil).

Post Balance sheet event

Following the outbreak of the COVID-19 pandemic in early 2020, the Company and the Firm are monitoring the development of the pandemic and evaluating its impact on the financial position and operating results of the Company. As at the date on which this set of financial statements were authorised for issue as the situation is ongoing and eventual outcome unknown, the Company cannot quantify the final impact on the financial position, operations or capital position as a result of the COVID-19 pandemic. For more detail on Firmwide measures refer to operational risk (page 13-14).

Financial risk management

Refer to the Strategic Report for details of how the Company manages its financial risks.

Other matters

HM Treasury adopted the requirements set out under CRD IV and issued the Capital Requirements Country-by-Country Reporting Regulations 2013, that was effective 1 January 2014. The legislation requires the Company to publish additional information, in respect of the year ended 31 December 2019, by 31 December 2020. This information will be available at the time on the Firm's website: <https://jpmorganchaseco.gcs-web.com/financial-information/european-union-eu-disclosures-country>.

Directors

The directors of the Company who served during the year and up to the date of signing the financial statements were as follows:

A.J.A. Cox
M.P. Melling
R. O'Grady
S.D. Moeller (appointed 24 January 2020)
J.E. Cossey (appointed 1 April 2020)

Statement of directors' responsibilities

The directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulation.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have prepared the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law). Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the company and of the profit or loss of the company for that period. In preparing the financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- state whether applicable United Kingdom Accounting Standards, comprising FRS 101, have been followed, subject to any material departures disclosed and explained in the financial statements;
- make judgements and accounting estimates that are reasonable and prudent; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business.

The directors are also responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the company's transactions and disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the financial statements comply with the Companies Act 2006.

J.P. MORGAN MARKETS LIMITED

Directors' report (continued)

Directors' confirmations

In the case of each director in office at the date the Directors' Report is approved:

- so far as the director is aware, there is no relevant audit information of which the company's auditors are unaware; and
- they have taken all the steps that they ought to have taken as a director in order to make themselves aware of any relevant audit information and to establish that the company's auditors are aware of that information.

Qualifying third party indemnity provisions

An indemnity is provided to the directors of the Company under the By-laws of JPMorgan Chase & Co. against liabilities and associated costs which they could incur in the course of their duties to the Company. The indemnity was in force during the financial year and also at the date of approval of the financial statements. A copy of the by-laws of JPMorgan Chase & Co. is available from the registered office address of the Company.

Company secretary

The secretary of the Company who served during the year was as follows:

J.P. Morgan Secretaries (UK) Limited

Registered address

25 Bank Street
Canary Wharf
London E14 5JP
England

Independent auditors

The independent auditors PricewaterhouseCoopers LLP, have expressed their willingness to continue in office.

On behalf of the Board



M. Melling

Date: 17 April 2020

Independent auditors' report to the members of J.P. Morgan Markets Limited

Report on the audit of the financial statements

Opinion

In our opinion, J.P. Morgan Markets Limited's financial statements:

- give a true and fair view of the state of the Company's affairs as at 31 December 2019 and of its profit for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law); and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Annual Report, which comprise: the balance sheet as at 31 December 2019; the income statement, the statement of comprehensive income, the statement of changes in equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which ISAs (UK) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the Company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the company's ability to continue as a going concern.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, ISAs (UK) require us also to report certain opinions and matters as described below.

Independent auditors' report to the members of J.P. Morgan Markets Limited

Reporting on other information (continued)

Strategic Report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Directors' Report for the year ended 31 December 2019 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic Report and Directors' Report.

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

As explained more fully in the Statement of directors' responsibilities, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

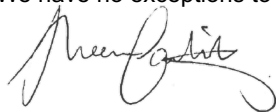
Other required reporting

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of directors' remuneration specified by law are not made; or
- the financial statements are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.



Sheena Coutinho (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountant and Statutory Auditors
London
17 April 2020

J.P. MORGAN MARKETS LIMITED

Income statement

Year ended 31 December		2019	2018
	Note	\$'000	\$'000
Trading profit		5,796	4,432
Interest income	5		
Financial assets held at fair value through profit or loss		45	137
Financial assets held at amortised cost		93,948	88,190
		93,993	88,327
Interest expense	5		
Financial liabilities held at fair value through profit or loss		(3)	(30)
Fees and commissions income	5	985	1,136
Operating income		100,771	93,865
Administrative expenses		(11,150)	(8,225)
Other income	6	12,709	2,099
Operating profit		102,330	87,739
Other Interest and similar income	7	258	742
Other Interest expense and similar charges	8	(4,642)	(1,594)
Profit on ordinary activities before taxation	9	97,946	86,887
Tax on profit on ordinary activities	11	(26,859)	(26,564)
Profit for the financial year		71,087	60,323

Statement of comprehensive income

There were no other items of comprehensive income or expense other than the profit for the financial year shown above (2018: \$nil). As a result, profit for the financial year represents total comprehensive income in both the current and prior financial year.

The notes on pages 25-43 form an integral part of the financial statements.

J.P. MORGAN MARKETS LIMITED

Balance sheet

31 December		2019	2018
	Note	\$'000	\$'000
Non-current assets			
Premises and equipment	12	25,222	—
Other assets	13	64,008	1,275
Total non-current assets		89,230	1,275
Current assets			
Financial assets held at fair value through profit or loss	14	11,107	11,457
Other assets	13	1,730	5,960
Securities purchased under agreements to resell	15	4,076,575	4,087,246
Debtors	16	167,636	228,399
Cash and cash equivalents	17	134,519	20,243
Total current assets		4,391,567	4,353,305
Current liabilities			
Lease liabilities	12	15,435	—
Financial liabilities held at fair value through profit or loss	18	1,811	1,801
Creditors: amounts falling due within one year	19	130,254	164,360
Provisions for liabilities	20	—	4,854
Total current liabilities		147,500	171,015
Net current assets		4,244,067	4,182,290
Non-current liabilities			
Lease liabilities	12	116,036	—
Provisions for liabilities	20	1,623	40,493
Deferred tax liability	21	2,255	1,946
Total non-current liabilities		119,914	42,439
Net assets		4,213,383	4,141,126
Equity			
Called-up share capital	22	1	1
Share premium account		125,851	125,851
Capital contribution reserve		4,076,769	4,076,769
Retained earnings/(accumulated losses)		10,762	(61,495)
Total equity		4,213,383	4,141,126

The notes on pages 25 - 43 form an integral part of these financial statements.

J.P. MORGAN MARKETS LIMITED
Balance sheet

The financial statements on pages 21 to 43 were approved by the Board of Directors on ^{17 April 2020} _____ and signed on its behalf by:



M. Melling

Date: 17 April 2020

J.P. MORGAN MARKETS LIMITED
Statement of changes in equity

	Called-up share capital	Share premium account	Capital contribution reserve	Retained earnings/ (accumulated losses)	Total equity
	\$'000	\$'000	\$'000	\$'000	\$'000
Balance as at 1 January 2018	1	125,851	4,076,769	(121,818)	4,080,803
Profit for the financial year	—	—	—	60,323	60,323
Balance as at 31 December 2018	1	125,851	4,076,769	(61,495)	4,141,126
Impact on account of transition to IFRS 16	—	—	—	1,170	1,170
Profit for the financial year	—	—	—	71,087	71,087
Balance as at 31 December 2019	1	125,851	4,076,769	10,762	4,213,383

The notes on pages 25 - 43 form an integral part of these financial statements.

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements

1. General information

The Company is domiciled in England and Wales. The address of its registered office is 25 Bank Street, Canary Wharf, London, E14 5JP. The Company's immediate parent undertaking is J.P. Morgan Financial Investments Limited, incorporated in England and Wales. The Company's ultimate parent undertaking and controlling party is JPMorgan Chase & Co. ("JPMorgan Chase" or the "Firm"), which is incorporated in the state of Delaware in the United States of America. JPMorgan Chase & Co. is also the parent undertaking of the smallest and largest group in which the results of the Company are consolidated. The largest and smallest parent groups' consolidated financial statements can be obtained from the Company's registered office.

Principal activities

The principal activity of the Company is to conduct Corporate and Investment Bank ("CIB") businesses, including Global Credit Trading and Equities, as well as continue to support limited legacy transactions until their scheduled maturity. The Company is authorised and regulated by the Financial Conduct Authority ("FCA").

2. Basis of preparation

These financial statements have been prepared in accordance with Financial Reporting Standard 101, 'Reduced Disclosure Framework' ("FRS 101"). FRS 101 applies the recognition and measurement requirements of International Financial Reporting Standards ("IFRS") as adopted by the European Union, with reduced disclosures.

The financial statements have been prepared on a going concern basis under the historical cost convention as modified by the revaluation of certain financial assets and financial liabilities measured at fair value through profit or loss, and in accordance with the Companies Act 2006. Reclassification of and adjustments to prior year amounts have been made to conform with current year presentation and to correctly reflect the nature of the balances so as to provide additional transparency and information in these financial statements.

The following exemptions from the requirements of IFRS as adopted by the EU have been applied in the preparation of these financial statements, in accordance with FRS 101:

- Comparative information disclosures for the following (paragraph 38, IAS 1 'Presentation of financial statements' ("IAS 1") for reconciliation of share capital (paragraph 79(a)(iv) of IAS 1);
- Statement of compliance with IFRS (paragraph 16, IAS 1);
- Cash flow statement and related notes (IAS 7 'Cash flow statements');
- Disclosures in relation to new or revised standards issued but not yet effective (paragraph 30 and 31, IAS 8 'Accounting policies, changes in accounting estimates and errors');
- Key management compensation disclosures (paragraph 17, IAS 24 'Related Party Disclosures' ("IAS 24")); and
- Related party transactions with wholly owned group undertakings (IAS 24).

2.1 Accounting and reporting developments

Standards adopted during the year ended 31 December 2019

Effective January 1, 2019, the Company adopted IFRS 16 *Leases* which superseded IAS 17 *Leases* and IFRIC 4 *Determining whether an Arrangement contains a Lease*. IFRS 16 requires, among other items, the Company to recognize lease right-of-use ("ROU") assets and lease liabilities on the balance sheet for its leases. The Company applied the new lease accounting guidance retrospectively by adjusting its opening retained earnings on 1 January 2019. As permitted by the Standard comparative information has not been restated and continues to be reported under IAS 17 and IFRIC 4.

Upon adoption of IFRS 16, the Company recognized \$28 million of lease ROU assets and \$62 million in net investment in subleases, both incorporating a previously recognised onerous lease provision of \$43 million as permitted by the standard and a corresponding lease liability of \$134 million in its balance sheet with no material cumulative adjustment to opening retained earnings. The weighted average incremental borrowing rate applied to lease liabilities at the date of initial applications of IFRS 16 was 2.64%. IFRS 16 did not have a material impact on the Company's 2019 income statement. As permitted by the Standard, the Company did not reassess whether existing contracts are or contain a lease under IFRS 16 and instead applied IFRS 16 to existing contracts that were previously identified as leases under IAS 17 and IFRIC 4.

Refer to note 12 for more information about the Company's transition to IFRS 16.

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

3. Critical accounting estimates and judgements

The preparation of financial statements generally requires management to make judgements, estimates and assumptions that affect the amounts recognised in the financial statements. The nature of estimation means that actual outcomes could differ from those estimates. The following judgement has had the most significant effect on amounts recognised in the financial statements:

Leases

The adoption of IFRS 16 requires company to make judgements and estimates that affect the measurement of right of use assets and lease liabilities. In determining the lease term we must consider all facts and circumstances that create an economic incentive to exercise renewal options (or not exercise termination options). Assessing whether a contract includes a lease also requires judgement. Estimates are required to determine the appropriate discount rate used to measure lease liabilities. Refer to note 12 for more information on leases.

Fair value measurement

The Company carries a significant portion of its assets and liabilities at fair value on a recurring basis. Estimating fair value often requires the application of judgement. The type and level of judgement required is largely dependent on the amount of observable market information available to the Company. For instruments valued using internally developed models that use significant unobservable inputs and are therefore classified within level 3 of the valuation hierarchy, judgements used to estimate fair value are more significant than those required when estimating the fair value of instruments classified within levels 1 and 2.

In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate model to use. Second, the lack of observability of certain significant inputs requires management to assess all relevant empirical data in deriving valuation inputs - including, for example, transaction details, yield curves, interest rates, prepayment rates, default rates, volatilities, correlations, equity or debt prices, valuations of comparable instruments, foreign exchange rates and credit curves. For further discussion of the valuation of level 3 instruments, including unobservable inputs used, see note 23.

For instruments classified in levels 2 and 3, management judgement must be applied to assess the appropriate level of valuation adjustments, the Company's credit-worthiness, market funding rates, liquidity considerations, unobservable parameters, and for portfolios that meet specified criteria, the size of the net open risk position. The judgements made are typically affected by the type of product and its specific contractual terms, and the level of liquidity for the product or within the market as a whole. For further discussion of valuation adjustments applied by the Firm see note 23.

The use of methodologies or assumptions different than those used by the Company could result in a different estimate of fair value at the reporting date. For a detailed discussion of the Company's valuation process and hierarchy, its determination of fair value for individual financial instruments, and the potential impact of using reasonable possible alternative assumptions for the valuations, see note 23.

4. Significant accounting policies

The following are the significant accounting policies applied in the preparation of these financial statements. These policies have been applied consistently in each of the years presented, unless otherwise stated.

4.1 Foreign currency translation

Monetary assets and monetary liabilities in foreign currencies are translated into United States ("U.S.") dollars at rates of exchange ruling on the balance sheet date. Income and expense items denominated in foreign currencies are translated into U.S. dollars at exchange rates prevailing at the date of the transactions. Any gains or losses arising on translation are taken directly to the income statement.

Non-monetary items denominated in foreign currencies that are stated at historical cost are translated into U.S. dollars at the exchange rate ruling at the date of the transaction.

Non-monetary items denominated in foreign currencies that are stated at fair value are translated into U.S. dollars at foreign exchange rates ruling at the dates when the fair values were determined. Translation differences arising on non-monetary items measured at fair value are recognised in the income statement.

4.2 Functional and presentation currency

Items included in the financial statements of the Company are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). U.S. dollars is considered as the functional and presentation currency of the Company.

4.3 Fees and commission income and expense

Fee and commissions obtained through Firm attribution agreements are recognised when the underlying contract becomes legally binding or at the agreed due date if later.

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

4. Significant accounting policies (continued)

4.4 Financial instruments

4.4.1 Financial assets and financial liabilities

i. *Recognition of financial assets and financial liabilities*

The Company recognises financial assets and financial liabilities when it becomes a party to the contractual provisions of the instrument. Regular way purchases and sales of financial assets are recognised on the trade-date, which is the date on which the Company commits to purchase or sell an asset.

ii. *Classification and measurement of financial assets and financial liabilities*

On initial recognition, financial assets are classified and measured at amortised cost, fair value through other comprehensive income or fair value through profit or loss. The classification is based on both the business model for managing the financial assets and their contractual cash flow characteristics. Factors considered by the Company in determining the business model for a group of assets include past experience on how the cash flows for these assets were collected, how the assets' performance is evaluated and reported to key management personnel, how risks are assessed and managed, and how managers are compensated.

On initial recognition, financial liabilities are classified as measured at either amortised cost or fair value through profit or loss.

iii. *Financial assets and financial liabilities measured at amortised cost*

Financial assets are measured at amortised cost if they are held under a business model with the objective to collect contractual cash flows ("Hold to Collect") and they have contractual terms under which cash flows are solely payments of principal and interest ("SPPI"). In making the SPPI assessment, the Company considers whether the contractual cash flows are consistent with a basic lending arrangement (i.e., interest includes only consideration for the time value of money, credit risk, other basic lending risks and a profit margin that is consistent with a basic lending arrangement). Where the contractual terms introduce exposure to risk or volatility that are inconsistent with a basic lending arrangement, the related financial asset is classified and measured at fair value through profit or loss. Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest. As a result of the application of these criteria, only debt financial assets are eligible to be measured at amortised cost.

Financial assets measured at amortised cost include cash and balances at cash equivalents, certain securities purchased under agreements to resell, debtors and accrued income.

Financial liabilities are measured at amortised cost unless they are held for trading or a designated as measured at fair value through profit or loss. Most of the Company's financial liabilities are measured at amortised cost. Financial liabilities measured at amortised cost include trade creditors, amounts owed to JPMorgan Chase undertakings and certain other liabilities.

Financial assets and financial liabilities measured at amortised cost are initially recognised at fair value including transaction costs. The initial amount recognised is subsequently reduced for principal repayments and for accrued interest using the effective interest method. In addition, the carrying amount of financial assets is adjusted by recognising an expected credit loss allowance through the profit or loss.

The effective interest method is used to allocate interest income or interest expense over the relevant period. The effective interest rate is the rate that discounts estimated future cash payments or receipts through the expected life of the financial asset or financial liability or a shorter period when appropriate, to the net carrying amount of the financial asset or financial liability. The effective interest rate is established on initial recognition of the financial asset or financial liability. The calculation of the effective interest rate includes all fees and commissions paid or received, transaction costs, and discounts or premiums that are an integral part of the effective interest rate. Transaction costs are incremental costs that are directly attributable to the acquisition, issuance or disposal of a financial asset or financial liability.

Gains and losses arising on the disposal of financial assets measured at amortised cost are recognised in 'trading profit' or other non interest revenue as relevant.

iv. *Financial assets and financial liabilities measured at fair value through profit or loss*

Financial assets and financial liabilities are measured at fair value through profit or loss (FVTPL) if they are held for trading. Under IFRS 9, a financial asset or a financial liability is defined as "held for trading" if it is acquired or incurred principally for the purpose of selling or repurchasing it in the near term, or forms part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit taking or it is a derivative. However, such financial instruments are used by the Company predominantly in connection with its client-driven market-making and/or for hedging certain assets, liabilities, positions, cash flows or anticipated transactions (i.e. risk management activities).

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

4. Significant accounting policies (continued)

4.4 Financial instruments (continued)

4.4.1 Financial assets and financial liabilities (continued)

iv. *Financial assets and financial liabilities measured at fair value through profit or loss (continued)*

Financial assets and financial liabilities held for trading comprise both debt and equity securities, loans and derivatives and the related are unrealised gains and losses.

In addition, certain financial assets that are not held for trading are measured at FVTPL if they do not meet the criteria to be measured at amortised cost or FVOCI. For example, if the financial assets are managed on a fair value basis, have contractual cash flows that are not SPPI or are equity securities. The Company did not elect to measure any equity instruments at FVOCI.

Financial instruments measured at FVTPL are initially recognised at fair value in the balance sheet. Transaction costs and any subsequent fair value gains or losses are recognised in profit or loss as they arise.

The Company manages cash instruments, in the form of debt and equity securities, and derivatives on a unified basis, including hedging relationships between cash securities and derivatives. Accordingly the Firm reports the gains and losses on the cash instruments and the gains and losses on the derivatives on a net basis in trading profits.

4.4.2 Interest income and interest expense

Unless a financial asset is credit-impaired, interest income is recognised by applying the effective interest method to the carrying amount of a financial asset before adjusting for any allowance for expected credit losses. If a financial asset is credit-impaired, interest income is recognised by applying the effective interest rate to the carrying amount of the financial asset including any allowance for expected credit losses.

Interest expense on financial liabilities is recognised by applying the effective interest method to the amortised cost of financial liabilities.

Interest income and expense on financial assets and financial liabilities measured at amortised cost are presented separately from interest income on financial instruments measured at FVTPL.

4.4.3 Trading profit

Profits and losses resulting from the purchase and sale of securities and the revaluation of financial instruments are recognised in trading profit on a trade-date basis, including related transaction costs and the associated interest.

4.4.4 Impairment of financial assets

The Company recognises ECL for financial assets that are measured at amortised cost.

Provisions for ECL are recognised on initial recognition of the financial instrument based on expectations of credit losses at that time. The credit loss allowance includes ECLs for financial instruments that may default in the next 12-month period for financial instruments that have not observed a significant increase in credit risk since initial recognition ("stage 1") or over a lifetime period for financial instruments that have observed a significant increase in credit risk since initial recognition ("stage 2"). The allowance also includes lifetime ECLs for financial instruments where there is objective evidence of credit-impairment at the reporting date ("stage 3"). In determining the appropriate stage for a financial instrument, the Company applies the definition of default consistent with the Basel definition of default to maintain uniformity of the definition across the Firm.

The determination of the stage for credit losses under the ECL model is dependent on the measurement of SICR. In determining SICR, the Company has conducted quantitative tests, which considers, but is not limited to, existing risk management indicators, credit rating changes and reasonable and supportable forward-looking information. Forward-looking information reflects a range of scenarios that incorporate macro-economic factors that are composed and monitored by a JPMorgan Chase's firm-wide specialised economic forecasting team.

The key input components for the quantification of expected credit loss through the ECL model includes the probability of default ("PD"), loss given default ("LGD") and exposure at default ("EAD"). The Company seeks to efficiently and effectively leverage as much as possible existing regulatory and capital frameworks where overlap is present for IFRS 9. Differences observed between content in existing frameworks and requirements under IFRS 9 have been identified and are adjusted accordingly. The inputs to the ECL model capture historical datasets and a reasonable and supportable forecasting horizon to estimate expected credit losses.

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

4. Significant accounting policies (continued)

4.5 Fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Fair values are determined by reference to observable market prices where available and reliable. Fair values of financial assets and financial liabilities are based on quoted market prices or dealer price quotations for financial instruments traded in active markets. Where market prices are unavailable, fair value is based on valuation models that consider relevant transaction characteristics (such as maturity) and use as inputs observable or unobservable market parameters, including but not limited to yield curves, interest rates, volatilities, equity or debt prices, foreign exchange rates and credit curves. Valuation adjustments may be made to ensure that financial instruments are recorded at fair value.

For financial assets and liabilities held at fair value, most market parameters in the valuation model are either directly observable or are implied from instrument prices. When input values do not directly correspond to the most actively traded market parameters the model may perform numerical procedures in the pricing such as interpolation.

The Company classifies its assets and liabilities according to a hierarchy that has been established under IFRS for disclosure of fair value measurements. The fair value hierarchy is based on the transparency of inputs to the valuation of an asset or liability as of the measurement date. The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities (level 1) and the lowest priority to unobservable inputs (level 3 inputs).

A financial instrument's categorisation within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement.

Further details on fair value measurements are provided in note 23 to the financial statements.

4.6 Derecognition of financial assets and financial liabilities

Financial assets are derecognised when the contractual right to receive cash flows from the asset has expired, or has been transferred with either of the following conditions met:

- a) the Company has transferred substantially all the risks and rewards of ownership of the asset; or
- b) the Company has neither retained nor transferred substantially all of the risks and rewards; but has relinquished control of the asset.

Financial liabilities are derecognised when they are extinguished, that is when the obligation is discharged, cancelled or expires.

4.7 Securities purchased under agreement to resell and securities sold under agreement to repurchase

Securities purchased under agreements to resell the securities to the counterparty, and securities sold under agreements to repurchase, are treated as collateralised lending and borrowing transactions respectively. The consideration for the transaction can be in the form of cash or securities. If the consideration for the purchase or sale of securities is given in cash the transaction is recorded on the balance sheet within securities purchased/sold under agreement to resell/repurchase. If the consideration is received or given in the form of securities the transaction is recorded off balance sheet. The difference between the sales and repurchase price is treated as interest and accrued over the life of the agreements using the effective interest method.

4.8 Offsetting financial assets and liabilities

Financial assets and financial liabilities are offset and the net amount reported in the balance sheet when there is currently a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or to realise the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Company or the counterparty.

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

4. Significant accounting policies (continued)

4.9 Leases

The Company recognizes lease right-of-use ("ROU") assets and lease liabilities at the lease commencement date. Lease ROU assets are included in Premises and equipment, and lease liabilities are disclosed separately for finance leases in the Company's balance sheet. The ROU asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the lease commencement date plus any initial direct costs incurred, less any lease incentives received. The ROU asset is subsequently amortized on a straight-line basis from the commencement date to the earlier of the end of the useful life of the ROU asset or the lease term. The estimated useful life of the ROU asset is determined on the same basis as those of the property and equipment. In addition, the ROU asset may be reduced by impairment losses, if any, and adjusted for certain remeasurement of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the Company's incremental borrowing rate. The lease liability is measured at amortized cost using a constant periodic rate of interest. It is remeasured when there is a change in an index or rate, or if the Company changes its assessment of whether it will exercise an extension or termination option. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the ROU asset, or is recorded in earnings if the carrying amount of the ROU asset has been reduced to zero.

The Company may enter into subleases on a portion of its real estate head leases which the Company does not utilize. The Company accounts for its interest in the head lease and sublease separately. The Company assesses the lease classification of a sub-lease with reference to the ROU asset arising from the head lease, not with reference to the underlying asset. If the sub-lease transfers to the sub-lessee substantially all of the risks and rewards of the Company's ROU relating to the premises under the sub-lease, then the lease is a finance lease; if not, then it is an operating lease.

4.10 Dividend recognition

Dividend income is recognised when the right to receive payment is established.

Dividend distributions are recognised in the period in which they are declared and approved.

4.11 Cash and cash equivalents

Cash and cash equivalents include cash and balances at banks and loans and advances to banks with maturities of three months or less.

4.12 Current and deferred income tax

Income tax payable on taxable profits (current tax) is recognised as an expense in the period in which the profits arise. Income tax recoverable on tax allowable losses is recognised as a current tax asset only to the extent that it is regarded as recoverable by offset against taxable profits arising in the current or prior period. Current tax is measured using tax rates and tax laws that have been enacted or substantively enacted at the balance sheet date.

Deferred tax is provided in full, using the liability method, on temporary differences arising from the differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax is determined using tax rates and legislation enacted or substantively enacted by the balance sheet date, which are expected to apply when the deferred tax asset is realised or the deferred tax liability is settled. Deferred tax assets and liabilities are only offset when there is both a legal right and an intention to settle on a net basis.

4.13 Provisions and contingent liabilities

Provisions are recognised when the Company has a present legal or constructive obligation as a result of past events, it is probable that an outflow of economic benefits will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made.

A contingent liability is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the company, or a present obligation that arises from past events but is not recognised because either the probability of an outflow of economic benefits is considered to be remote, or probable, but reliable estimate cannot be made. Contingent liabilities are not recognised in the financial statements; however disclosure is made unless the probability of settlement is remote.

4.14 Share capital

The share capital of the Company consists of ordinary shares, classified as equity.

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

4. Significant accounting policies (continued)

4.15 Segmental analysis

The Company is not in scope of IFRS 8 'Operating segments', as its debt or equity instruments are not traded on a public market, therefore segmental analysis of the Company's revenue and assets is not necessary.

5. Operating income

	<u>2019</u>	<u>2018</u>
	\$'000	\$'000
Interest income		
Financial assets held at fair value through profit or loss	45	137
Securities purchased under agreements to resell		
Amortised Cost	93,948	88,190
Total interest income	93,993	88,327
Interest expense		
Financial liabilities held at fair value through profit or loss	(3)	(30)
	<u>93,990</u>	<u>88,297</u>

The Company has disclosed operating income instead of turnover as this reflects more accurately the results and nature of the Company's activities.

Operating interest income includes interest income from other JPMorgan Chase undertakings of \$93.9 million (2018: \$88.2 million). All fee and commission income is received from other JPMorgan Chase undertakings.

6. Other income

	<u>2019</u>	<u>2018</u>
	\$'000	\$'000
Dividend income	512	570
Fair value movement on financial assets held at fair value through profit or loss	236	1,337
Sublease income (refer note 12)	9,865	—
Net foreign exchange gain	2,096	192
	<u>12,709</u>	<u>2,099</u>

7. Other interest and similar income

	<u>2019</u>	<u>2018</u>
	\$'000	\$'000
Other interest and similar income:		
Financial instruments at amortised cost	258	742

All interest and similar income is receivable from other JPMorgan Chase undertakings.

8. Other interest expense and similar charges

	<u>2019</u>	<u>2018</u>
	\$'000	\$'000
Other interest expense and similar charges:		
Financial instruments at amortised cost	1,167	1,594
Interest expense for leasing arrangements	3,475	—
	<u>4,642</u>	<u>1,594</u>

Interest expense and similar charges include balances with other JPMorgan Chase undertakings of \$0.9 million (2018: \$1.2 million).

J.P. MORGAN MARKETS LIMITED
Notes to the financial statements (continued)

9. Profit on ordinary activities before taxation

	2019	2018
	\$'000	\$'000
Profit on ordinary activities before taxation is stated after charging:		
Provision for onerous contract	—	705
Auditors' remuneration for the audit of the Company's annual financial statements	255	197
Audit-related assurance services	157	180

The average monthly number of staff employed by the Company during the year was none (2018: none).

10. Directors' emoluments and staff costs

	2019	2018
	\$'000	\$'000
Emoluments*	65	68
Total contributions to a defined contribution plan	1	1
Total value of long term incentive plans for all directors	—	—
Number of directors who exercised share options	1	—
Number of directors with shares received or receivable under LTIPs	3	3
Number of directors to whom defined benefits pension rights accrued	—	—
Number of directors to whom defined contribution pension rights accrued	2	2

*The amounts shown above in respect of emoluments paid to directors exclude amounts paid or due to directors under long term incentive plans, the value of share options granted or exercised and benefits to which directors are entitled under any pension schemes.

In accordance with the Companies Act 2006, the directors emoluments above represent the proportion paid or payable in respect of qualifying services only. Directors also received emoluments for non-qualifying services, which are not required to be disclosed.

Highest paid director

The emoluments of the highest paid director is under £200,000 which is not required to be disclosed under the requirements of the Companies Act 2006.

The directors are employees of other companies in the Firm and all expenses, including remuneration, are paid by those companies and not recharged.

J.P. MORGAN MARKETS LIMITED
Notes to the financial statements (continued)

11. Tax on profit on ordinary activities

	<u>2019</u>	<u>2018</u>
	\$'000	\$'000
(a) Analysis of tax charge for the year		
Current taxation		
Current tax on profits for the year	26,510	24,531
Adjustment in respect of prior years	40	87
Total current tax	26,550	24,618
Deferred tax		
Current year charge	334	(1,649)
Adjustment in respect of previous periods	—	3,473
Effect of changes in tax rates	(25)	122
Total deferred tax	309	1,946
Total tax expense for the year	26,859	26,564

(b) Factors affecting the current tax charge for the year

The current tax charge for the year differs from the standard rate of corporation tax in the UK (19%), including banking surcharge (27%). The banking surcharge of 8% is recognised for the first time in 2017. The differences are explained below:

	<u>2019</u>	<u>2018</u>
	\$'000	\$'000
Profit on ordinary activities before taxation	97,948	86,887
Profit on ordinary activities before taxation multiplied by standard rate of corporation tax in the UK (2019:27%; 2018: 27%)	26,446	23,459
Effects of:		
Adjustment in respect of prior years	40	3,560
Non-deductible expenses	279	21
Income not taxable	(197)	(206)
Tax rate changes	(25)	122
Change in basis adjustments	316	—
Net impact on disposal of financial assets measured at fair value through profit or loss	—	(392)
Total tax charge for the year	26,859	26,564

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

12. Leases

At December 31, 2019, the Company was obligated under a number of non-cancellable leases for premises. The lease of premises typically run for a period of 20 years. Certain leases contain renewal options and/or escalation clauses providing for increased rental payments based on maintenance, utility and tax increases, or they require the Company to perform restoration work on leased premises.

The Company recognizes lease ROU assets and lease liabilities at the lease commencement date. Lease ROU assets are included in Premises and equipment, and lease liabilities are presented separately in the Company's balance sheet. The ROU asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the lease commencement date plus any initial direct costs incurred, less any lease incentives received. The ROU asset is subsequently amortized on a straight-line basis from the commencement date to the earlier of the end of the useful life of the ROU asset or the lease term. The estimated useful life of the ROU asset is determined on the same basis as those of the property and equipment. In addition, the ROU asset may be reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the Company's incremental borrowing rate. The lease liability is measured at amortized cost using a constant periodic rate of interest. It is remeasured when there is a change in an index or rate, or if the Company changes its assessment of whether it will exercise an extension or termination option. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the ROU asset, or is recorded in earnings if the carrying amount of the ROU asset has been reduced to zero.

The Company may enter into subleases on a portion of its real estate head leases which the Company does not utilize. The sublease terms range from 5 years to 13 years. The Company accounts for its interest in the head lease and sublease separately. The Company assesses the lease classification of a sub-lease with reference to the ROU asset arising from the head lease, not with reference to the underlying asset. If the sub-lease transfers to the sub-lessee substantially all of the risks and rewards of the Company's ROU relating to the premises under the sub-lease, then the lease is a finance lease; if not, then it is an operating lease. As a result, the Company classified some of its subleases as finance leases within other assets since those subleases represent significantly all of the remaining term of the head lease and operating leases for all other subleases. For subleases that are classified as finance leases, the Company recognized a net investment in sub-lease representing the discounted lease payments receivable under the sub-lease and recognizes interest income. For operating leases, the Company recognizes income on a straight-line basis and continues to recognize amortization on the respective ROU asset relating to the premises under the sublease.

Leases (for the year-ended 31 December 2018 under IAS 17)

In the comparative period, as a lessee, the Company classified leases in which a significant portion of the risks and rewards of ownership are retained by the lessor, as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the income statement on a straight-line basis over the lease term.

Information about the Company's leasing activity is presented below:

	2019
	\$'000
Right of use assets	Real Estate
Balance as of January 1	27,917
Depreciation of ROU assets for the period	(2,695)
Balance at December 31	25,222
Net investment in sub-leases	
Balance at December 31	64,432
Lease liabilities	
Balance at December 31	131,471

J.P. MORGAN MARKETS LIMITED
Notes to the financial statements (continued)

12. Leases (continued)

For the period ending December 31,	2019
	\$'000
Interest expense on lease liabilities	3,475
Variable lease expense not included in lease liabilities ^(a)	6,481
Subleases- Finance leases	
Interest income on net investment in sublease	1,640
Other lease related income ^(b)	4,456
Subleases- Operating leases^(b)	
Lease income	3,149
Other lease related income	2,691
Other information	
Total cash outflow for leases	14,970
Weighted Average Discount Rate	2.64%

^(a) Recorded within Administrative expenses in the Company's income statement.

^(b) Recorded within Other income in the Company's income statement.

	2019
	\$'000
Lease liabilities - Maturity Analysis - contractual undiscounted cash flows	
Less than one year	15,435
One to five years	61,741
More than five years	71,179
Total undiscounted lease liabilities at December 31, 2019	148,355
Imputed interest discount on leases	(16,884)
Lease liabilities included in the statement of financial position at December 31, 2019	131,471

The following table sets out a maturity analysis of the undiscounted sub lease payments to be received after December 31, 2019:

Year Ended December 31	Finance Leases	Operating Leases
	\$'000	\$'000
2020	1,699	3,289
2021	4,243	3,472
2022	7,984	3,508
2023	8,384	3,508
2024	8,943	3,943
2025 and thereafter	43,321	15,516
Less: Imputed interest	(10,142)	—
Lease Receivable	64,432	33,236

J.P. MORGAN MARKETS LIMITED
Notes to the financial statements (continued)

13. Other Assets

	<u>2019</u>	<u>2018</u>
	\$'000	\$'000
Non-current		
Intangible assets*	1,275	1,275
Lease receivables (refer note 12)	62,733	—
	64,008	1,275
Current		
Lease receivables (refer note 12)	1,699	—
Other receivables*	31	5,960
	1,730	5,960
	65,738	7,235

*Prior year amounts have been reclassified to conform with current year presentation resulting in an increase of \$ 7.2 million in other receivables with a decrease of same amount in other debtors (refer note 16).

14. Financial assets held at fair value through profit or loss

	<u>2019</u>	<u>2018</u>
	\$'000	\$'000
Debt and equity securities	—	9
Non marketable equity securities	9,700	9,523
Derivatives	1,407	1,925
	11,107	11,457

Financial assets held at fair value through profit or loss include balances held with JPMorgan Chase undertakings of \$1.3 million (2018: \$1.0 million). Non marketable equity securities includes shares of LCH Group Holdings Ltd. and London Metals Exchange (LME).

15. Securities purchased under agreements to resell

	<u>2019</u>	<u>2018</u>
	\$'000	\$'000
Securities purchased under resale agreements		
Amortised cost	4,076,575	4,087,246
	4,076,575	4,087,246

All securities purchased under agreements to resell are due from other JPMorgan Chase undertakings. The fair value of securities purchased under agreements to resell and securities borrowed accepted as collateral that the Company is permitted to sell or repledge in the case of default is \$ 4,077 million (2018: \$4,087 million). These transactions are conducted under terms that are customary to standard lending activities.

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

16. Debtors

	2019	2018
	\$'000	\$'000
Debtors: amounts falling due within one year		
Trade receivables	38,889	24,907
Amounts owed by JPMorgan Chase undertakings	121,209	196,941
Other debtors*	7,538	6,551
	167,636	228,399

*Prior year amounts have been reclassified to conform with current year presentation resulting in a decrease of \$7.2 million in other debtors with an increase of same amount in other assets (refer note 13).

17. Cash and cash equivalents

Cash and cash equivalents includes bank balances of \$134.5 million (2018: \$20.2 million) held with JPMorgan Chase undertakings.

18. Financial liabilities held at fair value through profit or loss

	2019	2018
	\$'000	\$'000
Derivatives	1,811	1,801

These include balances held with JPMorgan Chase undertakings of \$0.9 million (2018: \$0.9 million).

19. Creditors

	2019	2018
	\$'000	\$'000
Creditors: amounts falling due within one year		
Bank overdraft	2,006	1,222
Trade creditors	59,000	65,401
Amounts owed to JPMorgan Chase undertakings	33,399	77,278
Taxation	24,134	16,591
Other liabilities	11,715	3,868
	130,254	164,360

20. Provision for liabilities

	2019	2018
	\$'000	\$'000
At 1 January	45,347	57,094
Charged to the income statement	—	705
Utilised during the year	—	(12,452)
Reclassified to right to use assets (refer note 2.1, 12)	(43,724)	—
At 31 December	1,623	45,347
Due within one year	—	4,854
Due after more than one year	1,623	40,493
	1,623	45,347

Current year provision represents lease restoration obligation charges.

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

21. Deferred tax liability

	2019	2018
	\$'000	\$'000
The balance comprises temporary differences attributable to:		
Financial assets held at fair value through profit or loss	1,990	1,946
Others	265	—
	2,255	1,946
At 1 January	1,946	—
Adjustment in respect of prior years	—	3,473
Tax rate changes	(25)	122
Deferred tax charged to Income Statement for the period	334	(1,649)
At 31 December	2,255	1,946
Due within one year	—	—
Due after more than one year	2,255	1,946
	2,255	1,946

22. Called-up share capital

	2019	2018
	\$'000	\$'000
Issued and fully paid share capital		
300 Ordinary shares of £1 each, authorised and issued (2018: 300 shares)	1	1
	1	1

23. Assets and liabilities measured at fair value

Fair value

Valuation process

The Company carries a portion of its assets and liabilities at fair value on a recurring basis.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is based on quoted market prices or inputs, where available. If listed prices or quotes are not available, fair value is based on valuation models and other valuation techniques that consider relevant transaction characteristics (such as maturity) and use as inputs observable or unobservable market parameters, including yield curves, interest rates, volatilities, prices (such as commodity, equity or debt prices), correlations, foreign exchange rates and credit curves.

The level of precision in estimating unobservable market inputs or other factors can affect the amount of gain or loss recorded for a particular position. Furthermore, while the Company believes its valuation methods are appropriate and consistent with those of other market participants, the methods and assumptions used reflect management judgement and may vary across the Company's businesses and portfolios. The use of different methodologies or assumptions by other market participants compared with those used by the Company could result in a different estimate of fair value at the reporting date.

Risk-taking functions are responsible for providing fair value estimates for assets and liabilities carried on the balance sheet at fair value. The Firm's valuation control function, which is a part of the Firm's Finance function and independent of the risk-taking functions, is responsible for verifying these estimates and determining any fair value adjustments that may be required to ensure that the Firm's positions are recorded at fair value. The valuation control function verifies fair value estimates provided by the risk-taking functions by leveraging independently derived prices, valuation inputs and other market data, where available.

In determining the fair value of a derivative portfolio, valuation adjustments may be appropriate to reflect the credit quality of the counterparty, the credit quality of the Company, and the funding risk inherent in certain derivatives. The credit and funding risks of the derivative portfolio are generally mitigated by arrangements provided to the Company by JPMorgan Chase Bank, N.A. and therefore the Company takes account of these arrangements in estimating the fair value of its derivative portfolio.

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

23. Assets and liabilities measured at fair value (continued)

Fair value hierarchy

The Company classifies its assets and liabilities according to a valuation hierarchy that reflects the observability of significant market inputs. The three levels are defined as follows:

Level 1 - inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 - inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.

Level 3 - one or more inputs to the valuation methodology are unobservable and significant to the fair value measurement.

A financial instrument's categorisation within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement.

Valuation methodologies

The following table describes the valuation methodologies used by the Company to measure its more significant products/ instruments at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Product/instrument	Valuation methodology, inputs and assumptions	Classifications in the valuation
Equity, debt and other trading securities	Quoted market prices. In the absence of quoted market prices, securities are valued based on: <ul style="list-style-type: none"> • Observable market prices for similar securities • Relevant broker quotes • Discounted cash flows 	Level 1 Level 2 or 3
Derivatives	Exchange-traded derivatives that are actively traded and valued using the exchange price. Derivatives that are valued using models such as the Black-Scholes option pricing model, simulation models, or a combination of models, that may use observable or unobservable valuation inputs as well as considering the contractual terms. The key valuation inputs used will depend on the type of derivative and the nature of the underlying instruments and may include equity prices, commodity prices, interest rate yield curves, foreign exchange rates, volatilities, correlations, credit default swaps ("CDS") spreads and recovery rates. Additionally, the credit quality of the counterparty and of the Company as well as market funding levels may also be considered.	Level 1 Level 2 or 3

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

23. Assets and liabilities measured at fair value (continued)

Assets and liabilities measured at fair value on a recurring basis

The following table presents the asset and liabilities reported at fair value as of 31 December 2019 and 2018, by major product category and fair value hierarchy:

	Level 1	Level 2	Level 3	Total fair value
	\$'000	\$'000	\$'000	\$'000
At 31 December 2019				
Financial assets held at fair value through profit or loss				
Debt and equity instruments	—	9,700	—	9,700
Derivative receivables	—	528	879	1,407
Total financial assets	—	10,228	879	11,107
Financial liabilities held at fair value through profit or loss				
Derivative payables	—	932	879	1,811
Total financial liabilities	—	932	879	1,811
At 31 December 2018				
Financial assets held at fair value through profit or loss				
Debt and equity instruments	—	9,511	21	9,532
Derivative receivables	—	1,045	880	1,925
Total financial assets	—	10,556	901	11,457
Financial liabilities held at fair value through profit or loss				
Derivative payables	—	900	901	1,801
Total financial liabilities	—	900	901	1,801

Level 3 valuations

The Firm has established well-structured processes for determining fair value, including for instruments where fair value is estimated using significant unobservable inputs (level 3).

Estimating fair value requires the application of judgement. The type and level of judgement required is largely dependent on the amount of observable market information available to the Company. For instruments valued using internally developed valuation models and other valuation techniques that use significant unobservable inputs and are therefore classified within level 3 of the fair value hierarchy, judgements used to estimate fair value are more significant than those required when estimating the fair value of instruments classified within levels 1 and 2.

In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate valuation model or other valuation technique to use. Second, due to the lack of observability of significant inputs, management must assess all relevant empirical data in deriving valuation inputs including equity volatility.

The following table presents the Company's primary level 3 financial instruments, the valuation techniques used to measure the fair value of those financial instruments, the significant unobservable inputs and the range of values for those inputs. While the determination to classify an instrument within level 3 is based on the significance of the unobservable inputs to the overall fair value measurement, level 3 financial instruments typically include observable components (that is, components that are actively quoted and can be validated to external sources) in addition to the unobservable components.

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

23. Assets and liabilities measured at fair value (continued)

Level 3 valuations (continued)

The range of values presented in the table is representative of the highest and lowest level input used to value the significant groups of instruments within a product/instrument classification.

	Asset	Liability	Net fair value	Principal valuation technique	Unobservable input	Range of input values	Weighted average
At 31 December 2019			\$'000				
Equity derivatives	879	(879)	—	Option pricing	Equity volatility	9% - 93%	
Total	879	(879)	—				

	Asset	Liability	Net fair value	Principal valuation technique	Unobservable input	Range of input values	Weighted average
At 31 December 2018			\$'000				
Debt and equity instruments	21	—	21	Market comparables	Price	\$0 - \$107	\$57
Equity derivatives	880	(901)	(21)	Option pricing	Equity volatility	14% - 57%	
Total	901	(901)	—				

The categories presented in the table have been aggregated based upon product type which may differ from their classification on the balance sheet and fair values are shown net.

Changes in and ranges of unobservable inputs

The following discussion provides a description of the impact on a fair value measurement of a change in the unobservable input in isolation, where relevant and significant. The impact of a change in an input may not be independent as a change in one unobservable input may give rise to a change in another unobservable input. For each of the individual relationships described below, the inverse relationship would also generally apply.

Volatility - Volatility is a measure of the variability in possible returns for an instrument, parameter or market index given how much the particular instrument, parameter or index changes in value over time. Volatility is a pricing input for options, including equity options, commodity options, and interest rate options. Generally, the higher the volatility of the underlying, the riskier the instrument. Given a long position in an option, an increase in volatility, in isolation, would generally result in an increase in a fair value measurement.

Fair value financial instruments valued using techniques that incorporate unobservable inputs

The fair value of financial instruments may be determined in whole or part using a valuation technique based on assumptions that are not supported by prices from observable current market transactions in the same instrument or based on available observable market data and changing these assumptions will change the resultant estimate of fair value. The potential impact as at 31 December 2019 of using reasonable possible alternative assumptions for the valuations including significant unobservable inputs would lead to an immaterial change to the results of the Company. Consequently, no sensitivity analysis for level 3 financial instruments is disclosed.

Changes in level 3 recurring fair value measurements

The following tables include a rollforward of the balance sheets amounts (including changes in fair value) for financial instruments classified by the Company within level 3 of the fair value hierarchy.

J.P. MORGAN MARKETS LIMITED
Notes to the financial statements (continued)

23. Assets and liabilities measured at fair value (continued)

Movement in assets and liabilities in Level 3 during the year

Financial assets	Debt and equity instrument	Derivative receivables	Total financial assets
	\$'000	\$'000	\$'000
At 1 January 2019	21	880	901
Total loss recognised in income statement	—	(1)	(1)
Settlements	(21)	—	(21)
At 31 December 2019	—	879	879

Change in unrealised gains/(losses) related to financial instruments held at 31 December 2019	—	—	—
---	---	---	---

Financial liabilities	Derivative payables	Total financial liabilities
	\$'000	\$'000
At 1 January 2019	901	901
Total gain recognised in income statement	(22)	(22)
At 31 December 2019	879	879

Change in unrealised gains/(losses) related to financial instruments held at 31 December 2019	—	—
---	---	---

Financial assets	Debt and equity instrument	Derivative receivables	Total financial assets
	\$'000	\$'000	\$'000
At 1 January 2018	87	886	973
Total loss recognised in income statement	—	(6)	(6)
Transfers in to Level 3	(66)	—	(66)
At 31 December 2018	21	880	901

Change in unrealised gains/(losses) related to financial instruments held at 31 December 2018	—	—	—
---	---	---	---

Financial liabilities	Derivative payables	Total financial liabilities
	\$'000	\$'000
At 1 January 2018	973	973
Total gains recognised in income statement	(72)	(72)
At 31 December 2018	901	901

Change in unrealised gains/(losses) related to financial instruments held at 31 December 2018	—	—
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Realised and unrealised gains/(losses) are reported in operating income in the income statement.

J.P. MORGAN MARKETS LIMITED

Notes to the financial statements (continued)

23. Assets and liabilities measured at fair value (continued)

Transfers between levels for instruments carried at fair value on a recurring basis

For the year ended 31 December 2019 and 2018, there were no significant transfers between levels 1 and 2.

During the year ended 31 December 2019, there were no significant transfers between levels 2 and 3.

Fair value of financial instruments not carried on balance sheet at fair value

Certain financial instruments that are not carried at fair value on balance sheet are carried at amounts that are not materially different to their fair value, due to their short term nature and generally negligible credit risk. These instruments include securities purchased under agreements to resell, debtors, cash at bank and in hand, bank overdraft, trade creditors, amounts owed to JPMorgan Chase undertakings and other liabilities.

The Company has \$4,443 million (2018: \$4,343 million) of financial assets and \$108 million (2018: \$148 million) of financial liabilities that are not measured at fair value. Given the short-term nature of these instruments, their carrying amounts in the balance sheet are a reasonable approximation of fair value.

Offsetting financial assets and financial liabilities

No financial assets and liabilities have been offset in the balance sheet as at 31 December 2019 (2018: \$nil). Financial instruments recognised within financial assets and financial liabilities held at fair value through profit or loss which were subject to enforceable master netting arrangements or other similar agreements but not offset, as at 31 December 2019, amounted to \$1 million (2018: \$1 million).

24. Contingent Liability

The Company has been named in a suit brought by the Libyan Investment Authority (LIA) in the UK High Court in relation to allegations concerning a predecessor entity, Bear Stearns International Limited, in connection with the LIA's purchase of certain notes in 2008. The suit seeks damages of USD 20 million plus interest. The Company is defending the claim. The Directors do not believe, at this stage, that it is probable a material liability will be incurred by the Company.

25. Post balance sheet events

Following the outbreak of the COVID-19 pandemic in early 2020, the Company and the Firm are monitoring the development of the pandemic and evaluating its impact on the financial position and operating results of the Company. As at the date on which this set of financial statements were authorised for issue as the situation is ongoing and eventual outcome unknown, the Company cannot quantify the final impact on the financial position, operations or capital position as a result of the COVID-19 pandemic. For more detail on Firmwide measures refer to operational risk (page 13-14).